

INDEX

MEASUREMENT TECHNIQUES

1960, Nos. 1-12



MEASUREMENT TECHNIQUES

1960, Nos. 1-12

A Translation of Izmeritel'naya Tekhnika

A

- Abdeev, Yu. M., L. V. Golovinskii, and E. G. Limonova, An Automatic Method of Determining the Level of Molten Substances - 704
- Abramzon, E. L., G. L. Grin, A. Ya. Peliks, and S. S. Podlazov, An Automatic Electronic Coordinate Measuring Equipment for a Heavy Boring Machine - 579
- Adaryukov, E. S., Increasing Labor Productivity in Inspection Work - 251
- Afanas'eva, V. A., see Koronkevich, V. P. - 373
- Afanas'eva, V. V., see Koronkevich, V. P. - 373
- Aglintsev, K. K., G. P. Ostromukhova, and E. A. Khol'nova, Measuring the Gamma Constant of Radium - 1054
- Aizenshtein, A. I., An Indicator of Maxima - 679
- Akhiezer, A. N., A Waveguide Power Divider with an Elliptical Polarization - 343
- Akhmatov, A. S., see Lu Ch'ao-tsêng - 839
- Aleksandrov, A. I., Transistorized Bridge-Type Quartz-Crystal Oscillators - 1044
- Alesin, V. D., New Principles for Determining Compulsion in State Checking of Measuring Instruments - 821
- Alferova, N. V., Measuring Torque by Means of an Induction Strain Gauge - 102
- Alimov, R. Z., A Device for Testing the Quality of Sliding Contacts when Measuring the Temperature of Rotating Objects - 314
- Andres, U. Ts., A. A. Kadushin, and G. I. Shor, Measurement by Radiometric Methods of the Speed of Bodies Falling in Liquids - 852
- Andrianov, A. N., The Necessity of Producing a Reference Book for the Repair and Adjustment of Measuring Instruments - 255
- Andrushevich, Yu. M., M. K. Klebanov, M. Ya. Tslaf, and A. L. Rabkin, A Kinematometer for Screw-Cutting Lathes - 588
- Antonov, P. P., see Vysotskii, A. V. - 469
- Arutyunov, V. O., G. D. Burdun, S. V. Gorbatshevich, A. K. Kolosov, and E. G. Shramkov, M. F. Malikov (An Obituary) - 363
- Arutyunov, V. O., and A. N. Gavrilov, The 1961 International Scientific and Technical Conference on Measurement Techniques and Instrument Making (IMEKO) - 544

Ashikhmin, V. I. and E. V. Koval'skii, A Slide Rule for Thermocouples - 115

Astaf'ev, N. N., Restoration of Caliper Jaws - 79

Astrov, D. N., see Sharevskaya, D. I. - 598

B

- Baivel', L. P., see Korsunskii, M. I. - 436
- Bak, M. A. and N. S. Shimanskaya, Radium-Mesothorium-Beryllium Source of Neutrons - 1057
- Bakhtin, V. I., and V. N. Mikhailin, An Autocompensated Thermal Vacuum Gauge - 760
- Bakhtov, G. S., An Attachment to the Instrument for Checking the Run-out of Small-Module Gears - 22
- Bakhvalova, V. V., see Zhokhovskii, M. K. - 195
- Barskii, A. M., see Shereshevskii, L. M. - 923
- Basin, N. G., An Attachment for Mechanizing Linear Measurements - 376
- Basovich, S. N., Scales with Transverse Graduations - 764
- Berezhnoi, S. I. Mobile Verification Laboratories - 351
- Beron, A. I., E. K. Gubnikov, and L. B. Glatman, Three-Component Dynamometer - 860
- Besser, M. R., Measurements of the Wear of Grinding Disks - 21
- Bilichenko, N. Ya., E. Kh. Zavgorodnii, and E. M. Vysochin, Measuring the Torque of Driving Shafts - 28
- Birger, L. A., Nonlinearity of Cutoff Attenuators Due to the Effect of Loading - 976
- Boguslavskii, V. P., see Tyurin, N. I. - 1035
- Boiko, A. N., - 723
- Bokin, M. N., Complex Checking of Spur Gears in Single-Profile Meshing with a Measuring Screw - 179
- Bolotov, B. E., Determining the Waviness of Raceway Surfaces in Frictionless Bearing Races - 383
- Borovik-Romanov, A. S., M. P. Orlova, and P. G. Strelkov, Designing a Practical Temperature Scale for the 10-90°K Interval - 42
- Borovik-Romanov, A. S., see Sharevskaya, D. I. - 598
- Boyarov, A. I., Frequency Characteristics of Feeler Profilometers - 733
- Boyarskii, L. A. and V. A. Kovalevskii, A Laboratory Objective Spectropyrometer - 38
- Bragin, B. K., A Normal Platinum Thermal Electrode - 596

- Bragin, B. K., Calibration of Rare-Metal Thermocouples Against the Melting Point of Palladium - 1019
- Brainin, E. I., Measurement of Dihedral Angles by Means of a Linnik Microinterferometer - 284
- Brammer, Yu. A., Measuring the Self-Capacity of Induction Coils - 969
- Breido, I. Ya. and Ksenzhuik, N. K., A High-Speed Programmed Electronic Decatron Tachometer - 391
- Breitman, Z. M., see Bruevich, N. B. - 403
- Bril', M. S., Initiation of Independent Investigations - 627
- Bril', M. S., Experience of Developing Departmental Inspection Networks and Instrument Repair Depots - 810
- Brishkin, M. I., An Automatic Device for Measuring Fuel Consumption - 541
- Brodskii, A. D. and Savateev, A. V., A New Method of Absolute Temperature Measurements - 397
- Brodskii, A. D. and G. N. Filandrov, Application of Freon for Checking Instruments in the Low Temperature Range - 864
- Broido, N. F., Preliminary Selection of Instruments for Automatic Control and Checking - 499
- Bruevich, N. B. and Z. M. Breitman, Checking Contact Angles of Radial-Thrust Bearings - 181
- Bryanskii, L. N., see Gertsenshtein, M. E. - 62
- Bryanskii, L. N., see Pronenko, V. I. - 618
- Bryzzhev, L. E., A New Method for Automatic Frequency Control - 681
- Budagyan, I. G., see Mirovitskii, D. I. - 796
- Budzis, V. A., The Equipment of Mobile Verification Laboratories - 352
- Bulatov, S. B. and N. M. Karelin, International Conference on the Measurement of Liquid Discharge in Open Channels and Waterways - 259
- Burdun, G. D., State Standards for Physical Units - 4
- Burdun, G. D., see Arutyunov, V. O. - 363
- Burdun G. D., International System of Units - 913
- Butivchenko, I. G., Pyrometer with an Automatic Signaling of the Registration Instant - 957
- Butorin, N. N., Production of Wire Transducers - 862
- Bychkov, N. S., Raising the Operating Quality of Measuring Devices - 353
- Bykov, M. A., International Conference of TC-38 of the International Electrotechnical Commission - 173

C

- Chaevskii, M. I., An Experimental Method of Determining Temperature Stresses by Means of Resistance Wire Transducers - 106
- Chekhonadskii, N. A., The Problem of Analyzing Errors in Measuring Systems - 817
- Chepura, V. F., see Namitokov, K. K. - 394
- Cherkasov, Yu. A., From the Work Experience of the Astrakhan State Control Laboratory for Measurement Technique - 347

- Chernov, A. M., see Kochan, V. A. - 606
- Chinarev, A. I., A Scientific and Technical Conference on Elastic Sensing Elements - 632
- Chirkov, B. S., see Petrov, I. N. - 948
- Chudnovskii, V. Yu., Improvements in Oscilloscope MPO-2 - 421
- Chudnovskii, V. Yu., Measuring the Thickness of the Cutting Produced by a Rotary Excavator Scoop - 653
- Churikov, G. N., A New Method of Checking Optical Quadrants - 280

D

- Danilyuk, P. M., Checking the Thickness of Straight-Tooth Angular-Wheel Teeth by their Edges - 17
- Danilyuk, P. M., Computing the Displacement of the Initial Contour of Gears when they are Checked by Means of Balls - 585
- Davidyuk, V. I., see Melamed, V. I. - 483
- Davydov, A. M., An Automatic Commutating Device for Multicurve Strain Recording - 25
- Davydov, B. S., The Principles of the Feeler Method for Measuring Surface Roughness. Reviewed by V. S. Chaman - 638
- Deineka, P. F., Determining the Volume of Granulated Substances in Small Quantities - 290
- Dekabrun, I. E., First International Congress of the IFAC on Automatic Control - 900
- Dobrovinskaya, M. I., The Departmental Inspection Agencies and the Assimilation of New Measurement - 542
- Dolinskii, E. F., Checking Digital Counting Instruments - 920
- Donde, Yu. Ya., The Activity of Industrial Test Laboratories - 166
- Donde, Yu. Ya., and M. A. Pisarevskaya, The Use of Alternating Currents for Calibrating Commercial Optical Pyrometers - 766
- Donskoi, Ya. G., see Kochan, V. A. - 606
- Drogomyzhskaya, M. N., see Kurilov, E. N. - 212
- Drozdova, L. V., and Kh. I. Libenson, Checking the Kinematic Accuracy of Gear-Cutting Machines - 928
- Dunin-Barkowskii, I. V., Working out Test Results by Means of Probability Paper - 12
- Dvinskikh, V. A., Circuits for Sorting Electrical Components - 873
- Dyakonov, I. I., Certain Problems in Measuring the Temperature of Rotating Objects - 44
- D'yakov, G. P., see Yugov, V. A. - 857
- Dyatlov, L. I. and G. M. Petrov, Utilization of Operational Amplifiers for Raising the Input Impedance of Measuring Circuits - 883

E

- Efremov, Yu. P., see Volkova, E. A. - 275
- Egorov, K. N. and A. I. Martsinyak, Determining the Acceleration Due to Gravity at the Location of the

VNIIM (All-Union Scientific Research Institute of Metrology) - 656

Egorov, V. A., The Fourth Conference on Precision Building of Instruments - 361

El'kind, A. I., Slotless Measuring Lines - 786

Ershov, N. M., The Control and Measuring Instrument Laboratories and the Technical Inspection of the Measuring Equipment - 629

Érvais, A. V., Adjustment and Repairs of Clock-Type Indicators - 184

Eryukhin, A. V., Reference Equipment for Checking Vacuum Gauge Measuring Units - 657

Evstaf'ev, F. F., Instability of Quartz Crystal Oscillator Frequencies - 1042

Evstaf'ev, F. F., Determining the Short-Term Instability of Quartz Oscillator Frequencies - 332

F

Fateev, S. G., Continuous Control of Tapering in Details Shaped on Circular Grinding Machines - 926

Fedorov, A. M. and B. E. Rabinovich, Investigation of a High-Frequency Thermistor Voltage Meter - 222

Fevraleva, N. E., see Taranov, S. G. - 133

Filandrov, G. N., see Brodskii, A. D. - 864

Finkel'shtein, V. E. and N. G. Starunov, A Standard Infrared Spectropyrometer - 35

Fleer, A. G., A New Device for the Recording and Summation of Periods of Time - 1017

Fofanov, O. N., A Machine for the Calibration and Checking of Dynamometers up to 50 Ton-Wt. - 756

Frenkel', D. and V. Stoika, Telemetering Apparent Power with a Hall-Effect Transducer - 1039

Frolov, F. P., Checking the Curvature of Thread Gauges - 583

Fyurstenberg, A. I., A Combined Oscillographic Method for Comparing Frequencies - 151

G

Gafanovich, M. D., and B. Ya. Gorodetskii, A Bell Differential Manometer DKFM-758

Gauzer, S. I. Checking Technique for Motor-Truck Weight-bridges - 188

Gavrilenko, M. K. Automatic Measurement of Jet-Pump Needle Displacements - 183

Gavrilov, A. N., see Arutyunov, V. O. - 544

Gerashkin, V. M., and D. V. Karetnikov, A Contactless Remote System for Measuring the Parameters of High-Tension Circuits - 505

Gershkovich, E. A. Conference on Problems in Raising the Level of Measuring Technique and the Quality of Production - 358

Gertsenshtein, M. E. and L. N. Bryanskii, Elimination of Mismatch Errors by Means of Phase Inverters - 62

Glagovskii, B. A. Measurement of Accelerations by Means of Piezoelectric Transducers Working in Strain-Gauge Equipment - 762

Glagovskii, B. A. Measuring the Density of Melts - 1065

Glatman, L. B., see Kuznetsov, A. V. - 285

Glatman, L. B., see Beron, A. I. - 860

Gogin, Yu. N. A Resistance Thermometer made from a Sparking Plug - 411

Gol'dreer, I. G. and Petrova, M. L. A Ratio-Measuring Photometer - 446

Golikhov, N. V. Regulating the Costs of Repairing Electric Meters - 354

Golovinskii, L. V., see Abdeev, Yu. M. - 704

Gol'tsman, B. M. Differential Thermal Level-Displacement Transducer - 1067

Gorbatsevich, S. V., see Arutyunov, V. O. - 363

Gordienko, A. I. and A. A. Korotkov. Progress in Measurements of Time and the Establishment of New Methods for Measuring Physical Quantities - 942

Gorodetskii, B. Ya., see Gafanovich, M. D. - 758

Gorodovskii, A. F., see Ilyunin, K. K. - 985

Gorpinchenko, I. S. Reference 1st Grade Lever-Type Dynamometer - 941

Gramenitskii, V. N. Elimination of Errors in Loaded Piston Scales Due to the Leakage of Liquid Through the Gaps - 744

Gratsianskii, I. N. Miniature Transistorized Galvanometric Amplifier - 124

Grin, G. L., see Abramzon, E. L. - 579

Grinevich, F. B. Principles of Constructing Automatic ac Bridges with Extremal Regulation - 1025

Grokhol'skii, A. L., A Standard Capacitor for Frequencies up to 200-300 Mc - 518

Grokhol'skii, A. L., Eliminating Errors in Q-Meter Type KV-1 - 887

Grozinskaya, Z. P. Errors in Determining Regular Undulations of Cylindrical Surfaces - 730

Gubnikov, E. K., see Beron, A. I. - 860

Gulyaev, G. A., Effect of Deformations in the Bending of the Shaft on the Accuracy of Torque Measurements - 853

Gusty', L. Ya. Investigating Errors in Optical Dividing Heads - 739

Gutovskii, I. G. Photoelectric Fluxmeters - 69

H

Hua Ch'ang-ken. Automatic Control of Dimensional Accuracy in Internal Grinding - 735

I

Ilyukovich, A. M. Conference on Automatic Control and Methods of Electrical Measurement - 257

Ilyukovich, A. M. Photocompensated recording Servo Systems - 449

Ilyukovich, A. M. Hall's Effect and its Application in Measurement Techniques - 623

Ilyunin, K. K. and A. F. Gorodovskii. Electrical Instrument-Making in Holland - 985

Izotov, S. I. Supplementing Instruction 130-56 - 171

K

- Kachurin, L. G. Checking the Sensitivity of Differential Resistance Thermometers in Unbalanced Bridge Circuits - 603
- Kadushin, A. A., see Andres, U. Ts. - 852
- Kaganer, M. G., see Rogovaya, I. A. - 27
- Kainer, G. B. Investigating Measurement Errors of Indicating Hole Gauges - 282
- Kalennikov, M. D., The Study of Measurement Instruments' Operational Properties - 464
- Kalennikov, M. D. Experience Gained in Repairing Instruments in Tractor Repair Stations - 711
- Kalennikov, M. D. An Important Sphere of Work. From the Experience of the Kiev State Inspection Laboratory of Measuring Equipment - 980
- Kalennikov, M. D. Economy in the Use of Electrical Energy - 1078
- Kapnik, M. Sh., and A. S. Sergeev. A Lamp for Lighting Electrical Measuring Instrument Scales Under Test - 785
- Karamov, A. E. Wider Publicity for the Problems of Measurement Techniques and Standardization - 982
- Karamyan, A. S. and Prokof'ev, P. T. A Magnetic Gamma-Spectrometer with an "Annular" Field - 233
- Karandeev, K. B. and I. A. Zkhariya. Inductive Compensation of the Error Due to the Shape of the Curve in Simple Rectifying Voltmeter Circuits - 608
- Karavashkin, B. K. and P. A. Shpan'on. Investigating a Method of Measuring Frequency Deviation of FM Signals by Means of Bessel Function Zeros - 684
- Karelin, N. M., see Bulatov, S. B. - 259
- Karetnikov, D. V., see Gerashkin, V. M. - 505
- Karpenko, V. P. Application of the Differential Calorimeter in Magnetic Measurements - 666
- Kartashev, A. I. V-Shaped Compensator for the Linnik Microinterferometer - 1011
- Kartasheva, A. N. Automation of the Statistical Treatment of Observation - 22
- Katsnel'son, S. M., Phase-Shifting Bridge with a Potentiometer-Controlled Continuous Operation - 877
- Kayak, L. K. A Conference on Optical Methods of Measuring Lengths and Angles - 718
- Kayak, L. K. and S. I. Toropin. Photoelectric Microscopes for Comparing Graduated Linear Measures - 90
- Kazachkov, R. V. Measurements of the Piston Temperature of High-Speed Internal Combustion Engines - 402
- Khakhamov, I. V. Design of Temperature Error Compensation Circuits in DC Volt-Hour Meters - 769
- Khalilulin, K. A. An Achromatic Compensator for Differences in the Paths of Rays. - 697
- Khansuvarov, K. I. The Study of a Reference Loaded-Spring Piston Barometer - 593
- Kharchenko, R. R. Galvanometer-Type Amplifiers with Photo-Converters for Oscilloscopes - 117
- Kharchenko, R. R., see Malinovskii, V. N. - 961
- Khlistunov, V. N. and V. P. Lavrov, Systematic Errors in Digital Time-Pulse Converters - 865
- Khol'nova, E. A., see Aglintsev, K. K. - 1054
- Khrenkov, P. I. Design of Damping Springs for Torsion-Suspension Instruments - 219
- Kirenkov, I. I., New Thermodynamic Temperature Measurements of Solidifying Gold and Zinc - 493
- Kirenkov, I. I., V. A. Kovalevskii, and G. A. Krakmal'nikova. Reproduction of Color-Temperature Scale by Photometric Methods - 112
- Kirichenko, Yu. A. Measurements of Temperature Conductivity by the Method of Radial Temperature Waves in a Cylinder - 406
- Kivilis, S. S. The Technique of Measuring Density of Liquid and Solid Bodies - 454
- Klebanov, M. K., see Andrushevich, Yu. M. - 588
- Klempner, K. S. and A. G. Vasil'ev. Dynamic Error in Registering the Position of an Object by means of Radiometric Relays - 1061
- Klientov, N. A. Measurement of Object-Micrometer-Type Scales - 93
- Klimushev, A. V., see Merkulov, V. S. - 355
- Klyuchnikov, N. G. Reviving the Activity of Industrial Laboratories - 253
- Klyuchnikov, N. G., A Pitch Gauge for Worm-Gear Cutters - 471
- Kochan, V. A., L. N. Stronskii, Ya. G. Donshoi, and A. M. Chernov. A New Universal DC Potentiometer UPL-60 - 606
- Kogan, I. I. Supplying State Inspection Laboratories and other Establishments with New Measuring Equipment - 712
- Kolker, I. G. A Kinematic Continuous Recording Method for Linear and Angular Displacements - 306
- Kolomitsov, Yu. V., N. N. Panchotova, and G. G. Smirnova. A Collimator Method of Checking Bearing Raceways - 931
- Kolosov, A. K., see Arutyunov, V. O. - 363
- Koronkevich, V. P., Skidan, V. V. and V. A. Afanas'eva, A Contact Interferometer with an extended Measuring Range - 373
- Korotkov, A. A., see Gordienko, A. I. - 942
- Korshunov, E. A., see Petrov, I. N. - 948
- Korsunskii, L. M., Electromagnetic Flowmeter with a Rectangular Channel - 893
- Korsunskii, M. I., A. S. Lagunov, L. P. Baivel, and A. N. Sinel'nikov, Application of Radiactive Isotopes for Measuring the Moisture Content of Steam - 436
- Kovalev, M. K., Measurement of Profile Angles of External Threads by Means of Castings - 836
- Kovalevskii, V. A., see Boyarskii, L. A. - 38
- Kovalevskii, V. A., see Kirenkov, I. I. - 112
- Koval'skii, E. V., see Ashkhmin, V. I. - 117
- Kozlov, R. F. Highly Stable DC Voltage Sources for Measuring Circuits - 204

- Krakhmal'nikova, G. A., see Kirenkov, I. I. - 112
 Krzhimovskii, V. I. and V. V. Kshimovskii. Bolometric Heads for Measuring Power at 1000 Mc - 691
 Ksenzhuk, N. K., see Breido, I. Ya. - 391
 Kshimovskii, V. V., see Krzhimovskii, V. I. - 691
 Kudryavtseva, N. A., see Tarasov, A. I. - 702
 Kufarev, G. L., see Rozenberg, A. M. - 660
 Kukush, V. D. and V. G. Orlov. Raising the Accuracy of the Electrical Calibration of Ponderomotive Ultra-high-Frequency Power Meters - 149
 Kulikovskii, L. F. and A. L. Tsiber. Single Slide-Wire Rectangular-Coordinate AC Compensators - 205
 Kurilov, E. N. and M. N. Drogomyzhskaya. Effect of the Coil Inductance on the Frequency Error of Rectifying Instruments - 212
 Kurilov, E. N., and L. A. Sinitskii. Frequency Errors of Rectifying Instruments with Blocking Capacitors - 782
 Kurochkin, A. P., see Vysotskii, A. V. - 469
 Kurochkin, A. P., and F. V. Tsidulko. The Use of Pneumoelectrical Measuring Units in the Transient State - 1013
 Kutai, A. K. A Method for Determining Errors in Linear Measurements - 1005
 Kuvshinov, S. I., Improved Technique for Checking Angle-Gauges by Means of Instrument APU-2 - 835
 Kuznetsov, A. V. and L. B. Glatman. Measuring the Wear of Cutting Tools in Well-Sinking Combines - 285

L

- Lagunov, A. S., see Korsunskii, M. I. - 436
 Lavrov, V. P., see Khlistunov, V. N. - 865
 Lessig, E. N. Calibration in Centimeter Steps of Underground Horizontal Tanks with Cylindrical Bottoms - 1070
 Levin, G. M. and V. I. Vol'mir, Methods for Testing Thermal Inertia in Thermocouples and Resistance Thermometers - 309
 Levin, M. I. Testing Current Transformers with Non-standard Nominal Transformation Coefficients - 1028
 Levin, M. I., V. F. Semenov, and K. N. Tseplyaev, A Measuring Galvanometric Amplifier with Semiconductor Thermistors - 513
 Levitskaya, N. V. An Active Voltage Divider for Higher Frequencies - 56
 Levitskii, V. N. Measuring Radial Wobble in Gear-Wheel Rims - 287
 Levitskii, V. N., An Indicating Instrument for Checking Gear Cutters - 471
 Levitskii, V. N. Checking the Slope Angle of Helical Gear Teeth - 587
 Levitskii, V. N. Determining the Roughness of Casting Surfaces - 729
 Libenson, Kh. I., see Drozdova, L. V. - 928

- Lifshits, A. S. and I. P. Mandel'berg, Protection of Manometers when Measuring Pulsating Pressures - 484
 Limonova, E. G., see Abdeev, Yu. M. - 704
 Lobodin, V. P. Checking Crystal Oscillators - 431
 Lopovok, T. S. An Instrument for Controlling Waviness and Deviations from the Correct Geometrical Shape - 381
 Loshak, V. I. Accuracy in Measuring Grain Moisture by the Drying Method - 936
 Lu Ch'ao-tseng and A. S. Akhmatov, Investigation of the Ringing Capacity of Block Gauges - 839
 Lubentsov, V. F. The 6th International Chronometric Congress - 82
 Lubsentsov, V. F., Time and Frequency Standards - 473
 Lukin, I. V., see Simkin, G. S. - 694
 Luk'yanchuk, I. G. Rewinding Output Transformers - 784
 Lulova, N. I., see Tarasov, A. I. - 702
 Lyapin, G. L., see Nenyukov, V. P. - 590
 Lyubarskaya, A. M. Conference of Instruments Using Torsion Suspensions - 994
 Lyubarskaya, A. M., see Tyurin, N. I. - 1035

M

- Malakhov, M. I., A Device for Measuring Taper Gauges - 20
 Malinin, N. V., Organizing the Work of Sections According to the Type of Measurements - 812
 Malinovskii, V. N. and R. R. Kharchenko., Digital Display Transistorized Bridge - 961
 Malyshev, V. I., Mechanism for Moving a Reference-Weight Flatcar - 851
 Mandel'berg, I. P., see Lifshits, A. S. - 484
 Markov, P. U., Organization of Factory and Area Laboratories - 714
 Martsinyak, A. I., see Egorov, K. N. - 656
 Matveev, V. V., A. N. Puzyr'kov, and V. L. Ryaskov, Measuring the Waviness of Frictionless Bearing Races - 727
 Mazurov, M. E. and I. N. Prudnikov, Measurement of Direct and Alternating Currents by Means of the Hall Effect - 613
 Medovnik, Ya. E., Qualified Personnel for the Factory Test Laboratories - 1077
 Mekler, M. I., Basic Tendencies in the Development of Dimensional Control in Engineering Abroad - 536
 Melamed, V. I., and V. I. Davidyuk, A Two-Component Dynamometer with an Optical Scale - 483
 Merkulov, V. S. and A. V. Klimushev, The "Isotopes" Exhibition Store - 355
 Mikhailin, V. N., see Bakhtin, V. I. - 760
 Mikhailovskaya, K. P., Measuring Impedances by Means of Oscilloscopes - 775
 Mikhailovskaya, S. S., A Remote Control System in Weighing - 31
 Mikitinskii, M. S., A Method of Measuring the Loss Angle of Capacitors - 209
 Mindeli, G. V., Measuring the Capacitance of Cable Circuits Under the Operating Voltage - 327

- Mirovitskii, D. I., Measuring Reflection Factors of Dielectric Samples in Free Space - 142
- Mirovitskii, D. I., G. G. Valeev, and I. F. Budagyan, Measuring the Complex Reflection Factor of Dielectric Materials - 796
- Mirskii, G. Ya., Improvements in the Technique of Measuring the Q Factor of a Resonator in a Circuit with a Measuring Line - 524
- Mizyuk, L. Ya., An Amplitude-Phase Indicator with an Alternating Action of the Compared Voltages - 778
- Morozova, G. Kh., see Sharevskaya, D. I. - 598

N

- Naberezhnykh, V. P., see Simkin, G. S. - 694
- Naiderov, V. Z., see Valitov, R. A. - 424
- Namitokov, K. K. and Chepura, V. F., Measurements of Vibrations and Linear Displacements by Means of UHF Waves - 394
- Nazarov, K. I., Portable, Highly Stable, Transistorized Oscillator with Several Fixed Frequencies - 971
- Nenyukov, V. P., A. S. Zhmur, and G. L. Lyapin, Strain-Gauge Acceleration Transducers - 590
- Netrebenko, K. A. Potential Dividers with a Constant Output Resistance - 129
- Nikerov, P. S., Processing of Oscillation Recordings by the Quadrature Method - 951
- Nikitin, A. G., see Volodarskii, V. Ya. - 799
- Nikolin, N. V., A Technique of Typical Calibration Table for Horizontal Cylindrical Tanks - 440
- Nikolin, N. V., Calibration of Horizontal Tanks by a Combined Method - 1069
- Nikonorov, A. P., L. N. Orlova, and I. V. Tsarev, An Instrument for Measuring the Roughness of Gear-Teeth Surfaces - 387
- Nosov, V. A., see Syvak, B. A. - 805
- Nosov, Yu. R., A Semiconductor Source of Standard (Reference) Voltages - 201
- Novokhatskii, E. M., A Method of Investigating the Flow Structure of an Air-Water Mixture in Vertical Pipes - 486

O

- Obal'skii, Ya. and V. Voityla, Measurement Techniques and Measurement Service in the Polish People's Republic - 466
- Ochinskii, N. K., A Device for Checking Gauges and Screws in Micrometers Measuring Over 200 mm - 279
- Ochinskii, N. K., Attachment for a Vertical Optimeter - 934
- Orlov, V. G., see Kukush, V. D. - 149
- Orlova, L. N., see Nikonorov, A. P. - 387
- Orlova, M. P., see Borovik-Romanov - 42
- Ornat'skii, P. P., Yu. A. Skripnik and N. F. Suvid, Methods and Devices for an Accurate Indication of a 90° Phase Shift. - 673
- Ostromukhova, G. P., see Aglintsev, K. K. - 1054

P

- Palatov, K. I., Measurement of Reflection Factors in Nonhomogeneous Complex UHF Transmission Lines - 1048
- Panaiotova, N. N., see Kolomiitsov, Yu. V. - 931
- Panchenko, V. S., Decreasing the Reading Error in Determining the Phase Difference by Means of the Lissajous Figures - 688
- P'ang Chung-cheng, Investigating Dynamic Accuracy Characteristics of Pneumatic Transducers for Automatic Checking of Dimensions - 574
- Paramonov, V. F., Calibration of Three-Component Dynamometers - 198
- Peliks, A. Ya., see Abramzon, E. I. - 579
- Pemzel, G., Exhibition of the National Factory - 636
- Perechikhin, K. I., New Retaining and Dog-Drive Mechanisms for Measuring Instruments - 296
- Perel'muter, S. S., Measurement of Reverse Losses in Ferrite Rectifiers - 1051
- Perel'shtein, E. I., One of the Basic Problems - The Strengthening of Departmental Supervision - 348
- Petkevich, M. V., see Selezneva, I. N. - 193
- Petropavlovskii, V. V., Problems of Organizational and Technical Preparations of Temporary Branches in Rural Areas - 249
- Petropavlovskii, V. V., The Necessity of Issuing a Reference Book to State Inspectors - 716
- Petropavlovskii, V. V., Instrument Reception Bureaus in the State Inspection Laboratories - 1079
- Petrov, G. M., see Dyatlov, L. I. - 883
- Petrov, I. N., E. A. Korshunov, and B. S. Chirkov, Improvements in Oscilloscope OT-24-51 - 948
- Petrov, N. B., see Shpan'on, P. A. - 226
- Petrova, M. L., see Gol'dreier, I. G. - 446
- Pilipchuk, B. I., Basic Defects of the Proposed System of Units "m-kg-kg-wt-sec" - 953
- Pisarevskaya, M. A., see Donde, Yu. Ya. - 766
- Podlazov, S. A., see Abramzon, E. I. - 579
- Ponomarev, A. I., Assimilating New Measurement Techniques in Production - 462
- Popov, V. S., Controlled Phase-Sensitive Circuits with Heated Resistors - 322
- Prokof'ev, P. T., see Karamyan, A. S. - 233
- Pronenko, L. Z., see Rivin, A. N. - 800
- Pronenko, V. I. and L. N. Bryanskii, An Instrument for Measuring the Voltage Standing-Wave Ratio of a Generator - 618
- Prudnikov, I. N., see Mazurov, M. E. - 613
- Pustynnikov, V. G., and Shatskii, N. Kh., Measurement of Vector Electrical Quantities - 412
- Puzyr'kov, A. N., see Matveev, V. V. - 727

R

- Rabinovich, B. E., see Fedorov, A. M. - 222
- Rabinovich, B. I., The All-Union Scientific and Technical Conference on Automatic Gas Analyzers - 630
- Rabkin, A. L., see Andrushevich, Yu. M. - 588

- Razumovskii, I. A., A Device for Checking Reference Gauges for Micrometers with Insertions Pieces - 934
- Rivin, A. N., and L. Z. Pronenko, Investigation of Sound-proof Coverings for Sound-Measuring Cabinets - 800
- Rogovaya, I. A. and M. G. Kaganer, A Piston Pressure Gauge with a Low Suspension of the Weights - 27
- Roitman, M. S., An AC Comparator Bridge - 615
- Rokhman, D. E. and V. R. Tyr, A Method of Measuring Internal Diameters of Pipes by Means of an Electrical Hole Gauge - 94
- Roman, M. I., A Change in the Internal Connections of Single-Phase Electricity Meters Type M and R - 1 - 331
- Romanenko, V. I., Discharge Coefficients of Double Bevel Diaphragms - 237
- Rozenberg, A. M., G. L. Kufarev and Yu. A. Rozenberg, A Dynamometer for Measuring Torque in Milling Machines - 660
- Rozenberg, Yu. A., see Rozenberg, A. M. - 660
- Rozhdestvenskaya, T. B. and A. M. Teplinskii, Thermoelectric Comparator for Measuring Small Alternating Currents and Checking Microammeters - 965
- Rozhkov, A. I., A Machine for Transcribing Scales when Repairing Electrical Measuring Instruments - 330
- Rubinov, A. D., Measurement of Large Diameters by the Girdling Method - 648
- Rudenko, I. R., Inspection of Weighing Equipment - 714
- Rudenko, P. V., The Effect of the Temperature of the Weighed Body on the Weighing Results - 941
- Rumyantsev, A. V., The Effect of Mandrel Eccentricity on the Accuracy of Edge Cams - 384
- Rusakov, I. G., International Conference of the ISO and the IEC on Acoustics and Electroacoustics - 546
- Rusalovich, N. I., Extending the Sphere of Application of Standard Weight-Piston Pressure Gauges - 109
- Ryaskov, V. L., see Matveev, V. V. - 727

S

- Samoilenko, V. N., Portable Extensometer for Measuring Deformations at High Temperatures - 856
- Savateev, A. V., see Brodskii, A. D. - 397
- Selezneva, I. N. and Petkevich, M. V., Undismountable Scales - 193
- Semenov, V. F., see Levin, M. I. - 513
- Sergeev, A. S., see Kapnik, M. Sh. - 785
- Sergeev, N. V., A Device for Adjusting Optimeter Table - 388
- Sergeev, V. A., Organizing the Production of Reference Equipment - 983
- Sharevskaya, D. I. and P. G. Strelkov, Thermometric Platinum Resistivity in the Region of Liquid Helium Temperature - 1023
- Sharevskaya, D. I., P. G. Strelkov, A. S. Borovik-Romanov, D. N. Astrov and G. Kh. Morozova, Differences in the Relations Between Resistance and Temperature of Several Brands of Platinum - 598

- Sharonov, G. N., Local Organizations of the Standards Committee and the Introduction of New Measurement Techniques - 1001
- Sharova, E. E., see Strakun, G. I. - 832
- Shatskii, N. Kh., see Pustynnikov, V. G. - 412
- Shchukin, V. N., The Problem of Measuring Equipment Repairs Has Been Overlooked - 256
- Shereshevskii, L. M. and A. M. Barskii, Application of Wood-Grained Plastics for Making Large Instruments - 923
- Shestopalov, V. N., A Device for Measuring Frequencies - 527
- Shigorin, V. P., A Bridge for Comparing Standard and Reference Resistors in the Range of 0.001 to 100,000 Ohms - 317
- Shimanskaya, N. S., see Bak, M. A. - 1057
- Shirokov, K. P., Testing Plans Developed by the D. I. Mendeleev All-Union Scientific Research Institute of Metrology - 566
- Shliomovich, M. Kh., Apparatus for Testing the Effect of External Magnetic Fields on Instruments - 507
- Shlyandin, V. M., Digital Electromechanical Voltmeters and Ohmmeters - 240
- Shor, G. I., see Andres, U. Ts. - 852
- Shpan'on, P. A. and N. B. Petrov, An Oscillographic Method of Measuring Frequency Deviation of Frequency Modulated Signals - 226
- Shpan'on, P. A., see Karavashkin, B. K. - 684
- Shpigel'man, E. S., Utilization of Aluminum for Calibrating First-Grade Thermocouples - 405
- Shpolyanskii, V. A., Dynamic Accuracy of Trigger Regulators with Unstable Pulses - 747
- Shramkov, A. Ya., Compensation for Temperature Effects in the EMF of Potentiometer Standard Cells - 772
- Shramkov, E. G., see Arutyunov, V. O. - 363
- Shtandel', A. E., Classification of Physical Quantities by Their Kinds - 828
- Shvaya, Z. B., Raising the Sensitivity of the Oscillographic Method of Discovering Distortions in Sinusoidal Voltages - 620
- Simkin, G. S., A Diffraction Correction for a Radio-Interferometer with a Closed Branch - 335
- Simkin, G. S., V. P. Naberezhnykh and I. V. Lukin, Modulation of Light by Means of an Ultrahigh Frequency (10^{10} cps) - 694
- Sinel'nikov, A. N., see Korsunskii, M. I. - 436
- Sinitskii, L. A., see Kurilov, E. N. - 782
- Skidan, V. V., see Koronkevich, V. P. - 373
- Skripnik, Yu. A., see Ornat'skii, P. P. - 673
- Skryabinskii, V. S., Power Measurement Errors in ac Circuits - 1032
- Skvortsov, N. N., A Universal Strain-Gauge Equipment UTSl-BT-12 - 298
- Skvortsov, N. N., New Electrical Measuring Instruments - 634
- Smagin, A. G., The Study of High-Q Quartz Crystal Plates - 792

- Smirnov, V. V., Measurements of Gamma and Beta Radiation Doses by Means of Thimble Ionization Chambers - 432
- Smirnova, G. G., see Kolomiitsov, Yu. V. - 931
- Smirnova, L. I., see Strakun, G. I. - 832
- Smirnova, N. A., New Replicas of a Standard Unit of Mass - 288
- Smirnova, N. A., The Theory of Automatic Beam Scales with Electrical Balancing - 844
- Sobolev, L. G., A Rational Choice of Parameter Relations in Differentiating Devices with a Reluctant Measuring Instrument - 662
- Sokolov, B. L., Republican Conference on Controlling the Quality of Manufactured Instruments - 991
- Sokolov, B. L., Rationalizing Tests - The Most Urgent Problem for Government Control Laboratories on Measurement Techniques - 1004
- Solov'ev, Yu. N., Evaluation of the Accuracy of Measurements in Testing Hydraulic Machine - 443
- Stakhov, E. A., Equipment for Oscilloscope Observation of the Traveling-Wave Factor in Ultrahigh Frequency Channels - 974
- Staroverov, N. M., Changes in Instructions for Verification of Instruments for Measuring Temperature - 265
- Staroverov, N. M., Changes in the Current Instructions for Checking Measures and Measuring Instruments - 549
- Starunov, N. G., see Finkel'shtein, V. E. - 35
- Stepanov, L. P., Hydrostatic Weighing of Liquids in Containers of Complex Shape - 742
- Stepanov, S. S., Effect of the Exposure Time on Hardness Measurements on the HRC Scale - 389
- Stoika, V., see Frenkel', D. - 1039
- Stopskii, S. B., Highly Sensitive Pressure Transducers Made of Organic Glass - 859
- Strakun, G. I., L. I. Smirnova, and E. E. Sharova, Reproduction and Transmission of the Value of an Angle in Reference Measurements - 832
- Strétkov, P. G., see Borovik-Romanov - 42
- Strelkov, P. G., see Sharevskaya, D. I. - 598
- Strelkov, P. G., see Sharevskaya, D. I. - 1023
- Stronskii, L. N., see Kochan, V. A. - 606
- Suvid, N. F., see Ornat'skii, P. P. - 673
- Svet, D. Ya., An Automatic Photoelectric Color Pyrometer TsEP-3 - 494
- Svyak, B. A. and V. A. Nosov, An Ultrasonic Recorder of the Level of Liquids - 805

T

- Taranov, S. G. and N. E. Fevraleva, A Magnetic Induction Meter Based on Hall's Effect - 133
- Tarasov, A. I., N. I. Lulova, N. A. Kudryavtseva, and E. I. Zemskova, A Laboratory Chromatographic Gas Analyzer - 702
- Teplinskii, A. M., see Rozhdestvenskaya, T. B. - 965
- Ter-Oganesyan, I. M., Certain Peculiarities in the Operation of a Rectifying Null-Indicator in the Presence of Higher Harmonics - 135

- Tisenko, N. G., The Problem of Compensating the Variations of Resistance with Temperature in Glued-On Strain Transducers - 302
- Toropin, S. I., see Kayak, L. K. - 90
- Trofimova, N. V., An Interferometer for Measuring Linear Scales up to 200 mm. - 645
- Trumpol'd, G., Interference Methods for Measuring Surface Roughness - 159
- Tsarev, I. V., see Nikonorov, A. P. - 387
- Tseitlin, V. G., A New Principle of Hydrostatic Weighing of Liquids - 33
- Tseplyaev, K. N., see Levin, M. I. - 513
- Tsiber, A. L., see Kulikovskii, L. V. - 205
- Tsidulko, F. V., see Kurochkin, A. P. - 1013
- Tsinin, P. N., see Subatov, S. A. - 77
- Tslaf, M. Ya., see Andrushevich, Yu. M. - 588
- Turbin, G. B., see Volosov, S. S. - 379
- Tyr, V. R., see Rokhman, D. E. - 94
- Tyurin, N. I., A. M. Lyubarskaya, and V. P. Boguslavskii, Universal Volt-Ammeters - 1035

U

- Ulezko, D. N., Measurements in the Field of Vision of Optical Instruments by Means of an Optically Independent Measuring Device - 155
- Ulezko, D. N., Symmetrical Constant Pressure-Drop Flow Gauge - 803

V

- Vaganov, I. P., Corrections to Hole Gauge Readings when Measuring Large Vertical Dimensions - 651
- Valeev, G. G., see Mirovitskii, D. I. - 796
- Valitov, R. A., Vikhrov, G. P. and Naidierov, V. Z., Certain Instances of the Use of Electronic Pulse Counters in Measurement Techniques - 424
- Vandyshev, B. A., Errors in Determining Hardness by Means of Impact-Type Instruments - 97
- Vasilenko, I. S., End-Pieces for Internal Measurement Devices - 95
- Vasil'ev, A. G., see Klempner, K. S. - 1061
- Vedmidskii, A. M., The Use of Plastics in the Production of Measuring Instruments and Automatic Equipment - 87
- Vedmidskii, A. M., Technical and Economic Problems of Checking Components in Engineering - 824
- Veisas, I. M., Organizing the Production of Test Sets - 1080
- Vikhrov, G. P., see Valitov, R. A. - 424
- Vishnyakov, A. E., Compensation of Diode Nonlinearity - 428
- Vlasov, K. P., Errors in Measuring the Temperature of Turbulent Flames by Optical Methods - 50
- Voityla, V., see Obal'skii, Ya. - 466
- Volkova, E. A. and Yu. P. Efremov, Measuring the Linear Temperature Coefficients of Block Gauges by Photoelectric Means - 275
- Vol'mir, V. I., see Levin, G. M. - 309

Volodarskii, V. Ya., and A. G. Nikitin, Utilization of the Standard Frequency of 100 kc Transmitted Over the Radio - 799

Volosevich, F. P. Checking MPB-2 Measuring Microscopes - 95

Volosevich, F. P., The Problem of Measuring Hardness - 947

Volosov, S. S. and Turbin, G. B., An Automatic Method of Ensuring Accuracy of Dimensions in Centerless Grinding - 379

Voronin, A. A., A Dynamometer Table with a Small Inertia - 481

Vorontsov, B. N., Highly Productive Hardness Gauges are Required - 293

Votlokhin, B. Z., Miniature Radiation Meters with Electric Generators - 232

Votlokhin, B. Z., A Semiconductor Capacitive Device for Signalling the Level and Separation of Phases - 621

Vysochin, E. M., see Bilichenko, N. Ya. - 28

Vysotskii, A. V., Checking Small Diameters - 838

Vysotskii, A. V., P. P. Antonov, and A. P. Kurochkin, A Device for Automatic Compensation of Temperature Errors in Measuring Lengths - 469

Y

Yakhontov, V. E., Introduction of a New Measurement Technique to the Establishments of the Odessa Region - 643

Yudin, M. F., A Neutron Dose Measurement Unit - 66

Yugov, V. A. and G. P. D'yakov, Film Strain Gauges for Measuring Magnetostriction in Ferrites - 857

Z

Zabutov, S. A., Steps in Improving the Quality of Instruments Issued from the Experience of the Krasnodar State Control Laboratory of Measuring Techniques - 558

Zakaznov, N. P., A Constant Forced Return in Moving Elements of Measuring Instruments - 659

Zavgorodnii, E. Kh., see Bilichenko, N. Ya. - 28

Zemel'man, M. A., Circuit Parameter Calculations for a Stepped-Voltage Reference Generator - 415

Zemskova, E. I., see Tarasov, A. I. - 702

Zimin, G. F., Measuring Irregularities in the Rotation of Shafts - 104

Zhmur, A. S., see Nenyukov, V. P. - 590

Zhokhovskii, M. K. and V. V. Bakhvalova, Differential Resistance High-Pressure Gauges - 195

Zhukovskii, N. I., Improving the Quality of Instruments for Measuring Pressure - 561

Zhukovskii, N. I., Wider Application of Thermal Meters in Our National Economy - 959

Zkhariya, I. A., see Karandeev, K. B. - 608

Zubatov, S. A. and P. N. Tsisin, Repairs of Weighing Equipment and its Inspection in Rural Areas - 77

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated January, 1960

1960, No. 1, pp. 1-86

November, 1960

CONTENTS

	PAGE	RUSS. PAGE
New Rules for Organizing and Carrying out Supervision of Measuring Equipment	1	1
State Standards for Physical Units. <u>G. D. Burdun</u>	4	5
Working out Test Results by Means of Probability Paper. <u>I. V. Dunin-Barkovskii</u>	12	11
Linear Measurements		
Checking the Thickness of Straight-Tooth Angular-Wheel Teeth by Their Edges. <u>P. M. Danilyuk</u>	17	14
A Device for Measuring Taper Gauges. <u>M. I. Malakhov</u>	20	16
Measurements of the Wear of Grinding Disks. <u>M. R. Besser</u>	21	17
An Attachment to the Instrument for Checking the Run-Out of Small-Module Gears. <u>G. S. Bakhtov</u>	22	18
Automation of the Statistical Treatment of Observations. <u>A. N. Kartasheva</u>	22	18
Mechanical Measurements		
An Automatic Commutating Device for Multicurve Strain Recording. <u>A. M. Davydov</u>	25	20
A Piston Pressure Gauge with a Low Suspension of the Weights. <u>I. A. Rogovaya and M. G. Kaganer</u>	27	22
Measuring the Torque of Driving Shafts. <u>N. Ya. Bilichenko, E. Kh. Zavgorodnii and E. M. Vysochin</u>	28	23
Measurements of Mass		
A Remote Control System in Weighing. <u>S. S. Mikhailovskii</u>	31	25
A New Principle of Hydrostatic Weighing of Liquids. <u>V. G. Tseitlin</u>	33	27
Thermotechnical Measurements		
A Standard Infrared Spectropyrometer. <u>V. E. Finkel'shtein and N. G. Starunov</u>	35	28
A Laboratory Objective Spectropyrometer. <u>L. A. Boyarskii and V. A. Kovalevskii</u>	38	31
Designing a Practical Temperature Scale for the 10-90°K Interval. <u>A. S. Borovik-Romanov, M. P. Orlova, and P. G. Strelkov</u>	42	34
Certain Problems in Measuring the Temperature of Rotating Objects. <u>I. I. D'yakonov</u>	44	36
Errors in Measuring the Temperature of Turbulent Flames by Optical Methods. <u>K. P. Vlasov</u>	50	40

CONTENTS (continued)

	PAGE	RUSS. PAGE
Electrical Measurements		
An Active Voltage Divider for Higher Frequencies. <u>N. V. Levitskaya</u>	56	44
High and Ultrahigh Frequency Measurements		
Elimination of Mismatch Errors by Means of Phase Inverters. <u>M. E. Gertsenshtein and L. N. Bryanskii</u>	62	48
Radiation Measurements		
A Neutron Dose Measurement Unit. <u>M. F. Yudin</u>	66	51
Essays and Reviews		
Photoelectric Fluxmeters. <u>I. G. Gutovskii</u>	69	54
Material Received by the Editorial Board		
Repairs of Weighing Equipment and Its Inspection in Rural Areas. <u>S. A. Zubatov and P. N. Tsinin</u>	77	59
Additional Information about the Defects of Electricity Meters	78	60
Restoration of Caliper Jaws. <u>N. N. Astaf'ev</u>	79	61
Information		
A Symposium on Interferometry	80	61
The 6th International Chronometric Congress. <u>V. F. Lubentsov</u>	82	62
I. P. Vladimirov	84	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated February, 1960

1960, No. 2, pp. 87-178

November, 1960

CONTENTS

	PAGE	RUSS. PAGE
The Use of Plastics in the Production of Measuring Instruments and Automatic Equipment. <u>A. M. Vedmidskii</u>	87	1
Linear Measurements		
Photoelectric Microscopes for Comparing Graduated Linear Measures. <u>L. K. Kayak</u> and <u>S. I. Toropin</u>	90	3
Measurement of Object-Micrometer-Type Scales. <u>N. A. Klientov</u>	93	5
A Method of Measuring Internal Diameters of Pipes by Means of an Electrical Hole Gauge. <u>D. E. Rokhman</u> and <u>V. R. Tyr</u>	94	6
End-Pieces for Internal Measurement Devices. <u>I. S. Vasilenko</u>	95	7
Checking MPB-2 Measuring Microscopes. <u>F. P. Volosevich</u>	95	7
Mechanical Measurements		
Errors in Determining Hardness by Means of Impact-Type Instruments. <u>B.A. Vandyshv</u>	97	8
Measuring Torque by Means of an Induction Strain Gauge. <u>N. V. Alferova</u>	102	11
Measuring Irregularities in the Rotation of Shafts. <u>G. F. Zimin</u>	104	12
An Experimental Method of Determining Temperature Stresses by Means of Resistance Wire Transducers. <u>M. I. Chaevskii</u>	106	14
Extending the Sphere of Application of Standard Weight-Piston Pressure Gauges. <u>N. I. Rusalovich</u>	109	16
Thermotechnical Measurements		
Reproduction of the Color-Temperature Scale by Photometric Methods. <u>I. I. Kirenkov</u> , <u>V. A. Kovalevskii</u> , and <u>G. A. Krakhmal'nikova</u>	112	18
A Slide Rule for Thermocouples. <u>V. I. Ashikhmin</u> and <u>E. V. Koval'skii</u>	115	20
Electrical Measurements		
Galvanometer-Type Amplifiers with Photo-Converters for Oscilloscopes. <u>R. R. Kharchenko</u>	117	21
Miniature Transistorized Galvanometric Amplifier. <u>I. N. Gratsianskii</u>	124	26
Potential Dividers with a Constant Output Resistance. <u>K. A. Netrebenko</u>	129	30
A Magnetic Induction Meter Based on Hall's Effect. <u>S. G. Taranov</u> and <u>N. E. Fevraleva</u>	133	33
Certain Peculiarities in the Operation of a Rectifying Null-Indicator in the Presence of Higher Harmonics. <u>I. M. Ter-Oganesyan</u>	135	35
High and Ultrahigh Frequency Measurements		
Measuring Reflection Factors of Dielectric Samples in Free Space. <u>D. I. Mirovitskii</u>	142	39

CONTENTS (continued)

	PAGE	RUSS. PAGE
Raising the Accuracy of the Electrical Calibration of Ponderomotive Ultrahigh-Frequency Power Meters. <u>V. D. Kukush and V. G. Orlov</u>	149	45
A Combined Oscillographic Method for Comparing Frequencies. <u>A. I. Fyurstenberg</u>	151	46
Optical Measurements		
Measurements in the Field of Vision of Optical Instruments by Means of an Optically Independent Measuring Device. <u>D. N. Ulezko</u>	155	49
Essays and Reviews		
Interference Methods for Measuring Surface Roughness. <u>G. Trumpol'd</u>	159	52
Material Received by the Editorial Board		
The Activity of Industrial Test Laboratories. <u>Yu. Ya. Donde</u>	166	57
Readers' Letters on the Activity of Industrial Laboratories.	168	59
Supplementing Instruction 130-56. <u>S. I. Izotov</u>	171	61
Information		
French Measurements Exhibition in Moscow.	172	62
International Conference of TC-38 of the International Electrotechnical Commission. <u>M. A. Bykov</u>	173	62
Committee of Standards, Measures, and Measuring Instruments		
Measures to Raise the Accuracy of Oil Products Viscosity Measurements	175	63
Methods and Instruments for Precise Measurement of Angular Velocities	176	64
New Specifications for Measures and Measuring Instruments Approved by the Committee.	176	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
Russian Original Dated March, 1960*

1960, No. 3, pp 179-270

December, 1960

CONTENTS

	PAGE	RUSS. PAGE
LINEAR MEASUREMENTS		
Complex Checking of Spur Gears in Single-Profile Meshing with a Measuring Screw. <u>M. N. Bokin</u>	179	1
Checking Contact Angles of Radial-Thrust Bearings. <u>N. B. Bruevich and Z. M. Breitman</u>	181	2
Automatic Measurement of Jet-Pump Needle Displacements. <u>M. K. Gavrilenko</u>	183	4
Adjustment and Repairs of Clock-Type Indicators. <u>A. V. Érvais</u>	184	5
MEASUREMENTS OF MASS		
Checking Technique for Motor-Truck Weighbridges. <u>S. I. Gauzer</u>	188	8
Portable Undismountable Scales. <u>I. N. Selezneva and M. V. Petkevich</u>	193	11
MECHANICAL MEASUREMENTS		
Differential Resistance High-Pressure Gauges. <u>M. K. Zhokhovskii and V. V. Bakhvalova</u>	195	12
Calibration of Three-Component Dynamometers. <u>V. F. Paramonov</u>	198	15
ELECTRICAL MEASUREMENTS		
A Semiconductor Source of Standard (Reference) Voltages. <u>Yu. R. Nosov</u>	201	17
Highly Stable DC Voltage Sources for Measuring Circuits. <u>R. F. Kozlov</u>	204	18
Single Slide-Wire Rectangular-Coordinate AC Compensators. <u>L. F. Kulikovskii and A. L. Tsiber</u>	205	19
A Method of Measuring the Loss Angle of Capacitors. <u>M. S. Mikitinski</u>	209	22
Effect of the Coil Inductance on the Frequency Error of Rectifying Instruments. <u>E. N. Kurilov and M. N. Drogomyzhskaya</u>	212	25
Design of Damping Springs for Torsion-Suspension Instruments. <u>P. I. Khrenkov</u>	219	30
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Investigation of a High-Frequency Thermistor Voltage Meter. <u>A. M. Fedorov and B. E. Rabinovich</u>	222	31
An Oscillographic Method of Measuring Frequency Deviation of Frequency-Modulated Signals. <u>P. A. Shpan'on and N. B. Petrov</u>	226	34
RADIATION MEASUREMENTS		
Miniature Radiation Meters with Electric Generators. <u>B. Z. Votlokhin</u>	232	38
A Magnetic Gamma-Spectrometer with an "Annular" Field. <u>A. S. Karamyan and P. T. Prokof'ev</u>	233	39
LIQUID AND GAS FLOW MEASUREMENTS		
Discharge Coefficients of Double Bevel Diaphragms. <u>V. I. Romanenko</u>	237	41
ESSAYS AND REVIEWS		
Digital Electromechanical Voltmeters and Ohmmeters. <u>V. M. Shlyandin</u>	240	45
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
Problems of Organizational and Technical Preparations of Temporary Branches in Rural Areas. <u>V. V. Petropavlovskii</u>	249	50

CONTENTS (continued)

	PAGE	RUSS. PAGE
Increasing Labor Productivity in Inspection Work. <u>E. S. Adaryukov</u>	251	52
Reviving the Activity of Industrial Laboratories. <u>N. G. Klyuchnikov</u>	253	54
The Necessity of Producing a Reference Book for the Repair and Adjustment of Measuring Instruments. <u>A. N. Andrianov</u>	255	55
The Problem of Measuring Equipment Repairs Has Been Overlooked. <u>V. N. Shchukin</u>	256	56
INFORMATION		
Conference on Automatic Control and Methods of Electrical Measurement. <u>A. M. Ilyukovich</u>	257	57
International Conference on the Measurement of Liquid Discharge in Open Channels and Waterways. <u>S. B. Bulatov and N. M. Karelin</u>	259	59
<u>N. F. Rymar'</u>	264	61
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
Changes in Instructions for Verification of Instruments for Measuring Temperature. <u>N. M. Staroverov</u>	265	62

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
Russian Original Dated April, 1960*

1960, No. 4, pp. 271-370

December, 1960

CONTENTS

	PAGE	RUSS. PAGE
LINEAR MEASUREMENTS		
Wringing Effect in Block Gauges. <u>V. A. Solov'ev</u>	271	1
Measuring the Linear Temperature Coefficients of Block Gauges by Photoelectric Means. <u>E. A. Volkova and Yu. P. Efremov</u>	275	4
A Device for Checking Gauges and Screws in Micrometers Measuring over 200 mm. <u>N. K. Ochinskii</u>	279	7
A New Method of Checking Optical Quadrants. <u>G. N. Churikov</u>	280	8
Investigating Measurement Errors of Indicating Hole Gauges. <u>G. B. Kainer</u>	282	9
Measurement of Dihedral Angles by Means of a Linnik Microinterferometer. <u>E. I. Brainin</u>	284	11
Measuring the Wear of Cutting Tools in Well-Sinking Combines. <u>A. V. Kuznetsov and L. B. Glatman</u>	285	12
Measuring Radial Wobble in Gear-Wheel Rims. <u>V. N. Levitskii</u>	287	13
MEASUREMENTS OF MASS		
New Replicas of a Standard Unit of Mass. <u>N. A. Smirnova</u>	288	13
MEASUREMENTS OF VOLUME		
Determining the Volume of Granulated Substances in Small Quantities. <u>P. F. Deineka</u>	290	14
MECHANICAL MEASUREMENTS		
Highly Productive Hardness Gauges are Required. <u>B. N. Vorontsov</u>	293	17
New Retaining and Dog-Drive Mechanisms for Measuring Instruments. <u>K. L. Perechikhin</u>	296	19
A Universal Strain-Gauge Equipment UTS1-BT-12. <u>N. N. Skvortsov</u>	298	20
The Problem of Compensating the Variations of Resistance with Temperature in Glued-On Strain Transducers. <u>N. G. Tisenko</u>	302	23
A Kinematic Continuous Recording Method for Linear and Angular Displacements. <u>L. G. Kolker</u>	306	26
THERMOTECNICAL MEASUREMENTS		
Methods for Testing Thermal Inertia in Thermocouples and Resistance Thermometers. <u>G. M. Levin and V. L. Vol'mir</u>	309	27
A Device for Testing the Quality of Sliding Contacts when Measuring the Temperature of Rota- ting Objects. <u>R. Z. Alimov</u>	314	31
ELECTRICAL MEASUREMENTS		
A Bridge for Comparing Standard and Reference Resistors in the Range of 0.001 to 100,000 Ohms. <u>V. P. Shigorin</u>	317	33
Controlled Phase-Sensitive Circuits with Heated Resistors. <u>V. S. Popov</u>	322	36
Measuring the Capacitance of Cable Circuits under the Operating Voltage. <u>G. V. Mindeli</u>	327	40
A Machine for Transcribing Scales when Repairing Electrical Measuring Instruments. <u>A. I. Rozhkov</u>	330	42
A Change in the Internal Connections of Single-Phase Electricity Meters Type M and R-1. <u>M. I. Roman</u>	331	43
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Determining the Short-Term Instability of Quartz Oscillator Frequencies. <u>F. F. Evstaf'ev</u>	332	43

CONTENTS (continued)

	PAGE	RUSS. PAGE
A Diffraction Correction for a Radio-Interferometer with a Closed Branch, <u>G. S. Simkin</u>	335	45
A Waveguide Power Divider with an Elliptical Polarization, <u>A. N. Akhiezer</u>	343	50
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
From the Work Experience of the Astrakhan State Control Laboratory for Measurement Technique.		
<u>Yu. A. Cherkasov</u>	347	53
One of the Basic Problems - the Strengthening of Departmental Supervision, <u>E. L. Perel'shtein</u> , . . .	348	53
Mobile Verification Laboratories, <u>S. I. Berezhnoi</u> ,	351	55
The Equipment of Mobile Verification Laboratories, <u>V. A. Budzis</u> ,	352	56
Raising the Operating Quality of Measuring Devices, <u>N. S. Bychkov</u> ,	353	56
Regulating the Costs of Repairing Electric Meters, <u>N. V. Golikov</u> ,	354	57
INFORMATION		
The "Isotopes" Exhibition Store, <u>V. S. Merkulov and A. V. Klimushev</u>	355	57
Conference on Problems in Raising the Level of Measuring Technique and the Quality of Production.		
<u>E. A. Gershkovich</u>	358	59
Sectional Conferences of Workers of the State Control Laboratories for Measuring Technique	360	59
The Fourth Conference on Precision Building of Instruments, <u>V. A. Egorov</u>	361	60
M. F. Malikov (An Obituary), <u>V. O. Arutyunov, G. D. Burdun, S. V. Gorbatshevich, A. K. Kolosov,</u> <u>and E. G. Shramkov</u> ,	363	61
IN THE COMMITTEE OF STANDARDS, MEASURES AND MEASURING INSTRUMENTS		
Conference on Problems of Standardization and Normalization of Instrument Building	365	62
I. New Normative Documents on Measures and Measuring Instruments		
Approved by the Committee		
New Standards (Upon registration in February, 1960)	367	63

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
Russian Original Dated May, 1960*

1960, No. 5, pp. 371-458

January, 1961

CONTENTS

	PAGE	RUSS. PAGE
Awards for the Best Reference Instruments. Exhibition of the Achievement of the USSR National Economy.	371	1
LINEAR MEASUREMENTS		
A Contact Interferometer with an Extended Measuring Range. <u>V. P. Koronkevich,</u> <u>V. V. Skidan, and V. A. Afanas'eva</u>	373	2
An Attachment for Mechanizing Linear Measurements. <u>N. G. Basin</u>	376	5
An Automatic Method of Ensuring Accuracy of Dimensions in Centerless Grinding. <u>S. S. Volosov and G. B. Turbin</u>	379	7
An Instrument for Controlling Waviness and Deviations from the Correct Geometrical Shape. <u>T. S. Lopovok</u>	381	9
Determining the Waviness of Raceway Surfaces in Frictionless Bearing Races. <u>B. E. Bolotov</u>	383	10
The Effect of Mandrel Eccentricity on the Accuracy of Edge Cams. <u>A. V. Rumyantsev</u>	384	11
An Instrument for Measuring the Roughness of Gear-Teeth Surfaces. <u>A. P. Nikonov, L. N. Orlova, and L. V. Tsarev</u>	387	14
A Device for Adjusting Optimeter Tables. <u>N. V. Sergeev</u>	388	14
MECHANICAL MEASUREMENTS		
Effect of the Exposure Time on Hardness Measurements on the HRC Scale. <u>S. S. Stepanov</u>	389	15
A High-Speed Programmed Electronic Decatron Tachometer. <u>I. Ya. Breido and N. K. Ksenzhuik</u>	391	17
Measurements of Vibrations and Linear Displacements by Means of UHF Waves. <u>K. K. Namitokov and V. F. Chepura</u>	394	20
THERMOTECNICAL MEASUREMENTS		
A New Method of Absolute Temperature Measurements. <u>A. D. Brodskii</u> <u>and A. V. Savateev</u>	397	21
Measurements of the Piston Temperature of High-Speed Internal Combustion Engines. <u>R. V. Kazachkov</u>	402	25
Utilization of Aluminum for Calibrating First-Grade Thermocouples. <u>E. S. Shpigel'man</u>	405	28
Measurements of Temperature Conductivity by the Method of Radial Temperature Waves in a Cylinder. <u>Yu. A. Kirichenko</u>	406	29
A Resistance Thermometer Made from a Sparking Plug. <u>Yu. N. Gogin</u>	411	32
ELECTRICAL MEASUREMENTS		
Measurement of Vector Electrical Quantities. <u>V. G. Pustynnikov and</u> <u>N. Kh. Shatskii</u>	412	33
Circuit Parameter Calculations for a Stepped-Voltage Reference Generator. <u>M. A. Zemel'man</u>	415	35

CONTENTS (continued)

	PAGE	RUSS. PAGE
Improvements in Oscilloscope MPO-2. <u>V. Yu. Chudnovskii</u>	421	39
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Certain Instances of the Use of Electronic Pulse Counters in Measurement		
Techniques. <u>R. A. Valitov, G. P. Vikhrov and V. Z. Naiderov</u>	424	41
Compensation of Diode Nonlinearity. <u>A. E. Vishnyakov</u>	428	45
Checking Crystal Oscillators. <u>V. P. Lobodin</u>	431	46
RADIATION MEASUREMENTS		
Measurement of Gamma and Beta Radiation Doses by Means of Thimble		
Ionization Chambers. <u>V. V. Smirnov</u>	432	47
Application of Radioactive Isotopes for Measuring the Moisture		
Content of Steam. <u>M. I. Korsunskii, A. S. Lagunov, L. P. Baivel',</u> <u>and A. N. Sinel'nikov</u>	436	50
MEASUREMENTS OF MASS		
A Technique of Typical Calibration Tables for Horizontal Cylindrical		
Tanks. <u>N. V. Nikolin</u>	440	52
LIQUID AND GAS FLOW MEASUREMENTS		
Evaluation of the Accuracy of Measurements in Testing Hydraulic Machines.		
<u>Yu. N. Solov'ev</u>	443	54
OPTICAL MEASUREMENTS		
A Ratio-Measuring Photometer. <u>I. G. Gol'dreer and M. L. Petrova</u>	446	57
ESSAYS AND REVIEWS		
Photocompensated Recording Servo Systems. <u>A.M. Ilyukovich</u>	449	59
INFORMATION		
French Measures Exhibition	451	60
BOOK REVIEWS		
The Technique of Measuring Density of Liquid and Solid Bodies.		
<u>S. S. Kivills</u>	454	62
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
I. New Specifications for Measures and Measuring Instruments Approved by		
the Committee. New Standards.	457	64
II. Measures and Measuring Instruments Approved by the Committee as the		
Result of State Tests and Passed for Use in the USSR.	457	64
III. Measures and Measuring Instruments Excluded from the State Register.	458	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated June, 1960

1960, No. 6, pp. 459-550

February, 1961

CONTENTS

	PAGE	RUSS. PAGE
Raising the Level of Measurement Techniques in the National Economy	459	1
Assimilating New Measurement Techniques in Production. <u>A. I. Ponomarev</u>	462	4
The Study of Measurement Instruments' Operational Properties. <u>M. D. Kalennikov</u>	464	6
Measurement Techniques and the Measurement Service in the Polish People's Republic. <u>Prof. Dr. Ya. Obal'skii and Engineer V. Voityla, M.Sc.</u>	466	7
LINEAR MEASUREMENTS		
A Device for Automatic Compensation of Temperature Errors in Measuring Lengths. <u>A. V. Vysotskii, P. P. Antonov, and A. P. Kurochkin</u>	469	9
A Pitch Gauge for Worm-Gear Cutters. <u>N. G. Klyuchnikov</u>	471	10
An Indicating Instrument for Checking Gear Cutters. <u>V. N. Levitskii</u>	471	11
A Device for Checking Indicators	472	11
MEASUREMENTS OF TIME		
Time and Frequency Standards. <u>V. F. Lubentsov</u>	473	12
MECHANICAL MEASUREMENTS		
A Dynamometer Table with a Small Inertia. <u>A. A. Voronin</u>	481	18
A Two-Component Dynamometer with an Optical Scale. <u>V. I. Melamed and V. I. Davidyuk</u>	483	20
Protection of Manometers when Measuring Pulsating Pressures. <u>A. S. Lifshits and I. P. Mandel'berg</u>	484	20
A Method of Investigating the Flow Structure of an Air-Water Mixture in Vertical Pipes. <u>E. M. Novokhatskii</u>	486	22
THERMOTECNICAL MEASUREMENTS		
New Thermodynamic Temperature Measurements of Solidifying Gold and Zinc. <u>I. I. Kirenkov</u>	493	26
An Automatic Photoelectric Color Pyrometer TsEP-3. <u>D. Ya. Svet</u>	494	26
Preliminary Selection of Instruments for Automatic Control and Checking. <u>N. F. Broido</u>	499	30
ELECTRICAL MEASUREMENTS		
A Contactless Remote System for Measuring the Parameters of High-Tension Circuits. <u>V. M. Gerashkin and D. V. Karetnikov</u>	505	33
Apparatus for Testing the Effect of External Magnetic Fields on Instruments. <u>M. Kh. Shliomovich</u>	507	35
A Measuring Galvanometric Amplifier with Semiconductor Thermistors. <u>M. I. Levin, V. F. Semenov, and K. N. Tseplyaev</u>	513	40
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
A Standard Capacitor for Frequencies up to 200-300 Mc. <u>A. L. Grokhol'skii</u>	518	43
Improvements in the Technique of Measuring the Q Factor of a Resonator in a Circuit with a Measuring Line. <u>G. Ya. Mirskii</u>	524	47
A Device for Measuring Frequencies. <u>V. N. Shestopalov</u>	527	49

(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
PHYSICOCHEMICAL MEASUREMENTS		
Measures for Developing the Work in the Sphere of pH Measurements. <u>I. Ya.</u>	530	50
ESSAYS AND REVIEWS		
Basic Tendencies in the Development of Dimensional Control in Engineering Abroad. <u>M. I. Mekler</u>	536	55
A Device for Improving the Balancing of AC Bridges	537	56
An Automatic Device for Measuring Fuel Consumption. <u>M. I. Brishkin</u>	541	59
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
The Departmental Inspection Agencies and the Assimilation of New Measurement Techniques. <u>M. I. Dobrovinskaya</u>	542	60
INFORMATION		
The 1961 International Scientific and Technical Conference on Measurement Techniques and Instrument Making (IMEKO). <u>V. O. Arutyunov and A. N. Gavrilo</u>	544	61
International Conference of the ISO and the IEC on Acoustics and Electroacoustics. <u>I. G. Rusakov</u>	545	62
Correspondence Courses on the Application of Semiconductors in Instruments	547	63
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
Changes in the Current Instructions for Checking Measures and Measuring Instruments. <u>N. M. Staroverov</u>	549	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated July, 1960

1960, No. 7, pp. 551-642

February, 1961

CONTENTS

	PAGE	RUSS. PAGE
Decisions of the July Plenum of the Central Committee of the Communist Party of the Soviet Union and Problems of Workers of Measurement Technique	551	1
Third Session of the International Committee of Legislative Metrology	553	3
The Forty-Eighth Session of the International Committee of Weights and Measures.	556	5
Steps in Improving the Quality of Instruments Issued from the Experience of the Krasnodar State Control Laboratory of Measuring Techniques. S. A. Zabutov.	558	6
Improving the Quality of Instruments for Measuring Pressure. N. I. Zhukovskii	561	8
Testing Plans Developed by the D. I. Mendelev All-Union Scientific Research Institute of Metrology. K. P. Shirokov	566	12
LINEAR MEASUREMENTS		
Investigating Dynamic Accuracy Characteristics of Pneumatic Transducers for Automatic Checking of Dimensions. P'ang Chung-cheng	574	16
An Automatic Electronic Coordinate Measuring Equipment for a Heavy Boring Machine. E. L. Abramzon, G. L. Grin, A. Ya. Peliks, and S. S. Podlazov.	579	20
Checking the Curvature of Thread Gauges. F. P. Frolov.	583	24
Computing the Displacement of the Initial Contour of Gears when they are Checked by Means of Balls. P. M. Danilyuk	585	25
Checking the Slope Angle of Helical Gear Teeth. V. N. Levitskii	587	26
A Kinematometer for Screw-Cutting Lathes. Yu. M. Andrushevich, M. K. Klebanov, M. Ya. Tslaf, and A. L. Rabkin.	588	27
MECHANICAL MEASUREMENTS		
Strain-Gauge Acceleration Transducers. V. P. Nenyukov, A. S. Zhmur, and G. L. Lyapin	590	28
The Study of a Reference Loaded-Spring Piston Barometer. K. I. Khansuvarov	593	31
THERMOTECNICAL MEASUREMENTS		
A Normal Platinum Thermal Electrode. B. K. Bragin	596	33
Differences in the Relation Between Resistance and Temperature of Several Brands of Platinum in the Range of 10.8 to 273.16°K. D. I. Sharevskaya, P. G. Strelkov, A. S. Borovik-Romanov, D. N. Astrov, and G. Kh. Morozova.	598	34
Checking the Sensitivity of Differential Resistance Thermometers in Unbalanced Bridge Circuits. L. G. Kachurin	603	38
ELECTRICAL MEASUREMENTS		
A New Universal DC Potentiometer UPL-60. V. A. Kochan, L. N. Stronskii, Ya. G. Donskoi, and A. M. Chernov	606	39
Inductive Compensation of the Error Due to the Shape of the Curve in Simple Rectifying Voltmeter Circuits. K. B. Karandeev and I. A. Zkhariya.	608	41
Measurement of Direct and Alternating Currents by Means of the Hall Effect. M. E. Mazurov and I. N. Prudnikov	613	45
An AC Comparator Bridge. M. S. Roitman	615	46

CONTENTS (continued)

	PAGE	RUSS. PAGE
MEASUREMENTS AT HIGH AND ULTRAHIGH FREQUENCIES		
An Instrument for Measuring the Voltage Standing-Wave Ratio of a Generator. V. I. Pronenko and L. N. Bryanskii.	618	48
Raising the Sensitivity of the Oscillographic Method of Discovering Distortions in Sinusoidal Voltages. Z. B. Shvaya.	620	50
MEASUREMENTS OF MASS		
A Semiconductor Capacitive Device for Signalling the Level and Separation of Phases. B. Z. Votlokhin.	621	50
ESSAYS AND REVIEWS		
Hall's Effect and its Application in Measurement Techniques. A. M. Ilyukovich.	623	52
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
Initiation of Independent Investigations. M. S. Brill'	627	55
The Control and Measuring Instrument Laboratories and the Technical Inspection of the Measuring Equipment. N. M. Ershov.	629	56
INFORMATION		
The All-Union Scientific and Technical Conference on Automatic Gas Analyzers. B. I. Rabinovich.	630	57
A Scientific and Technical Conference on Elastic Sensing Elements. A. I. Chinarev.	632	59
New Electrical Measuring Instruments. N. N. Skvortsov.	634	60
Exhibition of the National Factory K. Zeiss. G. Pemzel.	636	61
BOOK REVIEWS		
B. S. Davydov, The Principles of the Feeler Method for Measuring Surface Roughness. Reviewed by V. S. Chaman.	638	61
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
Alterations in the Current Instructions for Checking Height and Slide Gauges.	639	62
I. New Specifications for Measures and Measuring Instruments Approved by the Committee. New Standards.	641	63
II. Measures and Measuring Instruments Approved by the Committee as the Result of State Tests and Passed for Use in the USSR.	641	64
III. Measures and Measuring Instruments Excluded from the State Register.	642	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
Russian Original Dated August, 1960*

1960, No. 8, pp. 643-726

March, 1961

CONTENTS

	PAGE	RUSS. PAGE
Introduction of a New Measurement Technique to the Establishments of the Odessa Region. <u>V. E. Yakhontov</u>	643	1
LINEAR MEASUREMENTS		
An Interferometer for Measuring Linear Scales up to 200 mm. <u>N.V. Trofimova</u>	645	2
Measurement of Large Diameters by the Girdling Method. <u>A. D. Rubinov</u>	648	4
Corrections to Hole Gauge Readings when Measuring Large Vertical Dimensions. <u>I. P. Vaganov</u>	651	6
Measuring the Thickness of the Cutting Produced by a Rotary Excavator Scoop. <u>V. Yu. Chudnovskii</u>	653	8
Lubrication for Gauge Blocks	655	10
MECHANICAL MEASUREMENTS		
Determining the Acceleration due to Gravity at the Location of the VNIIM (All-Union Scientific Research Institute of Metrology). <u>K. N. Egorov and A. I. Martsinyak</u>	656	10
Reference Equipment for Checking Vacuum Gauge Measuring Units. <u>A. V. Eryukhin</u>	657	11
A Constant Forced Return in Moving Elements of Measuring Instruments. <u>N. P. Zakaznov</u>	659	13
A Dynamometer for Measuring Torque in Milling Machines. <u>A. M. Rozenberg</u> , <u>G. L. Kufarev, and Yu. A. Rozenberg</u>	660	13
THERMOTECNICAL MEASUREMENTS		
A Rational Choice of Parameter Relations in Differentiating Devices with a Reluctant Measuring Instrument. <u>L. G. Sobolev</u>	662	15
ELECTRICAL MEASUREMENTS		
Application of the Differential Calorimeter in Magnetic Measurements. <u>V. P. Karpenko</u>	666	19
Methods and Devices for an Accurate Indication of a 90° Phase Shift. <u>P. P. Ornat-skii, Yu. A. Skripnik, and N. F. Suvid</u>	673	24
An Indicator of Maxima. <u>A. I. Alzenshtein</u>	679	29
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
A New Method of Automatic Frequency Control. <u>L. D. Bryzzhev</u>	681	30
Investigating a Method of Measuring Frequency Deviations of FM Signals by Means of Bessel Function Zeroes. <u>B. K. Karavashkin and P. A. Shpan'on</u>	684	33
Decreasing the Reading Error in Determining the Phase Difference by Means of the Lissajous Figures. <u>V. S. Panchenko</u>	688	36
Bolometric Heads for Measuring Power at 1000 Mc. <u>V. I. Krzhimovskii and</u> <u>V. V. Kshimovskii</u>	691	38
OPTICAL MEASUREMENTS		
Modulation of Light by Means of an Ultrahigh Frequency (10^{10} cps). <u>G. S. Simkin</u> , <u>V. P. Naberezhnykh, and L. V. Lukin</u>	694	41
An Achromatic Compensator for Differences in the Paths of Rays. <u>K. A. Khalilulin</u>	697	44

CONTENTS (continued)

	PAGE	RUSS. PAGE
PHYSICOCHEMICAL MEASUREMENTS		
A Laboratory Chromatographic Gas Analyzer. <u>A. I. Tarasov, N. I. Lulova, N. A. Kudryavtseva, and E. I. Zemskova</u>	702	47
An Automatic Method of Determining the Level of Molten Substances. <u>Yu. M. Abdeev, L. V. Golovinskiĭ, and E. G. Limonova</u>	704	49
REVIEWS		
American Technical Council Circuits for Checking Measuring Instruments	707	51
MATERIALS RECEIVED BY THE EDITORIAL BOARD		
Experience Gained in Repairing Instruments in Tractor Repair Stations. <u>M. D. Kalennikov</u>	711	54
Supplying State Inspection Laboratories and Other Establishments with New Measuring Equipment. <u>I. I. Kogan</u>	712	55
Inspection of Weighing Equipment. <u>I. R. Rudenko</u>	714	56
Organization of Factory and Area Laboratories. <u>P. U. Markov</u>	714	57
The Necessity of Issuing a Reference Book to State Inspectors. <u>V. V. Petropavlovskii</u>	716	58
INFORMATION		
A Conference on Optical Methods of Measuring Lengths and Angles. <u>L. K. Kayak</u>	718	59
British Exhibition of Laboratory and Industrial Instruments	720	60
Industrial Exhibition of the Hungarian People's Republic	723	62
A. N. Boiko	723	63
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
I. New Specification for Measures and Measuring Instruments Approved by the Committee. New Standards.	725	63
II. Specifications for Checking Measures and Measuring Instruments Approved by the Measuring Instruments' Administration of the Committee	725	64
III. Measures and Measuring Instruments Approved by the Committee as the Result of State Tests and Passed for Use in the USSR.	725	64
IV. Measures and Measuring Instruments Excluded from the State Register	726	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated September, 1960

1960, No. 9, pp. 727-816

April, 1961

CONTENTS

LINEAR MEASUREMENTS

Measuring the Waviness of Frictionless Bearing Races. <u>V. V. Matveev, A. N. Puzyr'kov</u> and <u>V. L. Ryaskov</u>	727	1
Determining the Roughness of Casting Surfaces. <u>V. N. Levitskii</u>	729	3
Errors in Determining Regular Undulations of Cylindrical Surfaces. <u>Z. P. Grozinskaya</u>	730	3
Frequency Characteristics of Feeler Profilometers. <u>A. I. Boyarov</u>	733	5
Automatic Control of Dimensional Accuracy in Internal Grinding. <u>Hua Ch'ang-ken</u>	735	7
Investigating Errors in Optical Dividing Heads. <u>L. Ya. Gustyr'</u>	739	10

MEASUREMENTS OF MASS

Hydrostatic Weighing of Liquids in Containers of Complex Shape. <u>L. P. Stepanov</u>	742	12
Elimination of Errors in Loaded Piston Scales Due to the Leakage of Liquid Through the Gaps. <u>V. N. Gramenitskii</u>	744	13

MEASUREMENT OF TIME

Dynamic Accuracy of Trigger Regulators with Unstable Pulses. <u>V. A. Shpolyanskii</u>	747	16
--	-----	----

MECHANICAL MEASUREMENTS

A Machine for the Calibration and Checking of Dynamometers up to 50 Ton-Wt. <u>O. N. Fofanov</u>	756	22
A Bell Differential Manometer DKFM. <u>M. D. Gafanovich and B. Ya. Gorodetskii</u>	758	23
An Autocompensated Thermal Vacuum Gauge. <u>V. I. Bakhtin and V. N. Mikhailin</u>	760	25
Measurement of Accelerations by Means of Piezoelectric Transducers Working in Strain-Gauge Equipment. <u>B. A. Glagovskii</u>	762	26
Scales with Transverse Graduations. <u>S. N. Basovich</u>	764	28

THERMOTECHNICAL MEASUREMENTS

The Use of Alternating Currents for Calibrating Commercial Optical Pyrometers. <u>Yu. Ya. Donde and M. A. Pisarevskaya</u>	766	29
---	-----	----

ELECTRICAL MEASUREMENTS

Design of Temperature Error Compensation Circuits in DC Volt-Hour Meters. <u>I. V. Khakhamov</u>	769	31
Compensation for Temperature Effects in the EMF of Potentiometer Standard Cells. <u>A. Ya. Shramkov</u>	772	33
Measuring Impedances by Means of Oscilloscopes. <u>K. P. Mikhailovskaya</u>	775	35
An Amplitude-Phase Indicator with an Alternating Action of the Compared Voltages. <u>L. Ya. Mizyuk</u>	778	38
Frequency Errors of Rectifying Instruments with Blocking Capacitors. <u>E. N. Kurilov</u> and <u>L. A. Sinitskii</u>	782	41

CONTENTS (continued)

	PAGE	RUSS. PAGE
Rewinding Output Transformers. <u>I. G. Luk'yanchuk</u>	784	42
A Lamp for Lighting Electrical Measuring Instrument Scales Under Test. <u>M. Sh. Kapnik and A. S. Sergeev</u>	785	43
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Slotless Measuring Lines. <u>A. I. El'kind</u>	786	44
The Study of High-Q Quartz Crystal Plates. <u>A. G. Smagin</u>	792	48
Measuring the Complex Reflection Factor of Dielectric Materials. <u>D. I. Mirovitskii, G. G. Valeev, and I. F. Budagyan</u>	796	51
Utilization of the Standard Frequency of 100 kc Transmitted Over the Radio. <u>V. Ya. Volodarskii and A. G. Nikitin</u>	799	53
ACOUSTICAL MEASUREMENTS		
Investigation of Soundproof Coverings for Sound-Measuring Cabinets. <u>A. N. Rivin</u> and <u>L. Z. Pronenko</u>	800	54
LIQUID AND GAS FLOW MEASUREMENTS		
Symmetrical Constant Pressure-Drop Flow Gauge. <u>D. N. Ulezko</u>	803	56
PHYSICOCHEMICAL MEASUREMENTS		
An Ultrasonic Recorder of the Level of Liquids. <u>B. A. Syvak and V. A. Nosov</u>	805	57
ESSAYS AND REVIEWS		
An Automatic Measuring Converter Based on the Hall Effect.	807	58
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
Experience of Developing Departmental Inspection Networks and Instrument Repair Depots. <u>M. S. Bril'</u>	810	60
Organizing the Work of Sections According to the Type of Measurements. <u>N. V. Malinin</u>	812	62
INFORMATION		
Measuring Equipment at the Industrial Exhibition of the Hungarian People's Republic. ...	814	63
Collection "New Measuring Instruments and Methods of Checking Them" (No. I).	816	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR
Russian Original Dated October, 1960*

1960, No. 10, pp. 817-908

July, 1961

CONTENTS

	PAGE	RUSS. PAGE
The Problem of Analyzing Errors in Measuring Systems. <u>N. A. Chekhonadskii</u>	817	1
New Principles for Determining Compulsion in State Checking of Measuring Instruments. <u>V. D. Alesin</u>	821	5
Technical and Economic Problems of Checking Components in Engineering. <u>A. M. Vedmidskii</u>	824	7
Classification of Physical Quantities by Their Kinds. <u>A. E. Shtandel'</u>	828	10
LINEAR MEASUREMENTS		
Reproduction and Transmission of the Value of an Angle in Reference Measurements. <u>G. I. Strakun, L. I. Smirnova, and E. E. Sharova</u>	832	13
Improved Technique for Checking Angle-Gauges by Means of Instrument APU-2. <u>S. I. Kuvshinov</u>	835	16
Measurement of Profile Angles of External Threads by Means of Castings. <u>M. K. Kovalev</u>	836	16
Checking Small Diameters. <u>A. V. Vysotskii</u>	838	18
Investigation of the Ringing Capacity of Block Gauges. <u>Lu Ch'ao-tsêng and A. S. Akhmatov</u>	839	19
MEASUREMENTS OF MASS		
The Theory of Automatic Beam Scales with Electrical Balancing. <u>N. A. Smirnova</u>	844	22
Mechanism for Moving a Reference-Weight Flatcar. <u>V. I. Malyshev</u>	851	27
MECHANICAL MEASUREMENTS		
Measurement by Radiometric Methods of the Speed of Bodies Falling in Liquids. <u>U. Ts. Andres, A. A. Kadushin, and G. I. Shor</u>	852	27
Effect of Deformations in the Bending of the Shaft on the Accuracy of Torque Measurements. <u>G. A. Gulyaev</u>	853	29
Portable Extensometer for Measuring Deformations at High Temperatures. <u>V. N. Samoilenko</u>	856	31
Film Strain Gauges for Measuring Magnetostriction in Ferrites. <u>V. A. Yugov and G. P. D'yakov</u>	857	31
Highly Sensitive Pressure Transducers Made of Organic Glass. <u>S. B. Stopskii</u>	859	33
Three-Component Dynamometer. <u>A. I. Beron, E. K. Gubnikov, and L. B. Glatman</u>	860	33
Production of Wire Transducers. <u>N. N. Butorin</u>	862	35
THERMOTECNICAL MEASUREMENTS		
Application of Freon for Checking Instruments in the Low Temperature Range. <u>A. D. Brodskii and G. N. Filandrov</u>	864	36
ELECTRICAL MEASUREMENTS		
Systematic Errors in Digital Time-Pulse Converters. <u>V. N. Khlistunov and V. P. Lavrov</u>	865	37
Circuits for Sorting Electrical Components. <u>V. A. Dvinskikh</u>	873	42
Phase-Shifting Bridge with a Potentiometer-Controlled Continuous Operation. <u>S. M. Katsnel'son</u>	877	45
Utilization of Operational Amplifiers for Raising the Input Impedance of Measuring Circuits. <u>L. I. Dyatlov and G. M. Petrov</u>	883	49

CONTENTS (continued)

	PAGE	RUSS. PAGE
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Eliminating Errors in Q-Meter Type KV-1. <u>A. L. Grokhol'skii</u>	887	52
LIQUID AND GAS FLOW MEASUREMENTS		
Electromagnetic Flowmeter with a Rectangular Channel. <u>L. M. Korsunskii</u>	893	56
INFORMATION		
First International Congress of the IFAC On Automatic Control. <u>I. E. Dekabrun</u>	900	60
Papers Read on the Technique of Radio Measurements at the All-Union Scientific Session Dedicated to the Radio Day in 1960.	903	63
Metrological Section Bureau of the Central Administration of the Instrument-Making Industry's Scientific and Technical Society.	905	64
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
New Specifications for Measures and Measuring Instruments Approved by the Committee. . .	907	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated November, 1960

1960, No. 11, pp. 909-1000

August, 1961

CONTENTS

	PAGE	RUSS. PAGE
11th General Conference on Weights and Measures	909	1
International System of Units, <u>G. D. Burdun</u>	913	4
Checking Digital Counting Instruments, <u>E. F. Dolinskii</u>	920	9
LINEAR MEASUREMENTS		
Application of Wood-Grained Plastics for Making Large Measuring Instruments, <u>L. M. Shereshevskii and A. M. Barskii</u>	923	10
Continuous Control of Tapering in Details Shaped on Circular Grinding Machines, <u>S. G. Fateev</u>	926	13
Checking the Kinematic Accuracy of Gear-Cutting Machines, <u>L. V. Drozdova</u> and <u>Kh. I. Libenson</u>	928	14
A Collimator Method of Checking Bearing Raceways, <u>Yu. V. Kolomilitsov</u> , <u>N. N. Panalotova</u> , and <u>G. G. Smirnova</u>	931	16
Attachment for a Vertical Optimeter, <u>N. K. Ochinskii</u>	934	18
A Device for Checking Reference Gauges for Micrometers with Insertion Pieces, <u>I. A. Razumovskii</u>	934	19
MEASUREMENTS OF MASS		
Accuracy in Measuring Grain Moisture by the Drying Method, <u>V. I. Loshak</u>	936	20
The Effect of the Temperature of the Weighed Body on the Weighing Results, <u>P. V. Rudenko</u>	941	23
MEASUREMENTS OF TIME		
Progress in Measurements of Time and the Establishment of New Methods for Measuring Physical Quantities, <u>A. I. Gordienko and A. A. Korotkov</u>	942	24
MECHANICAL MEASUREMENTS		
Reference 1st Grade Lever-Type Dynamometer, <u>I. S. Gorpichenko</u>	945	26
The Problem of Measuring Hardness, <u>F. P. Volosevich</u>	947	28
Improvements in Oscilloscope OT-24-51, <u>I. N. Petrov</u> , <u>E. A. Korshunov</u> , and <u>B. S. Chirkov</u>	948	29
Processing of Oscillation Recordings by the Quadrature Method, <u>P. S. Nikerov</u>	951	31
THERMOTECHNICAL MEASUREMENTS		
Basic Defects of the Proposed System of Units "m - kg - wt - sec", <u>B. I. Pilipchuk</u>	953	32
Pyrometer with an Automatic Signaling of the Registration Instant, <u>I. G. Butivchenko</u>	957	35
Wider Application of Thermal Meters in Our National Economy, <u>N. I. Zhukovskii</u>	959	36
ELECTRICAL MEASUREMENTS		
Digital Display Transistorized Bridge, <u>V. N. Malinovskii and R. R. Kharchenko</u>	961	37
Thermoelectric Comparator for Measuring Small Alternating Currents and Checking Microammeters, <u>T. B. Rozhdestvenskaya and A. M. Teplinskii</u>	965	41
Measuring the Self-Capacitance of Induction Coils, <u>Yu. A. Brammer</u>	969	44

(continued)

CONTENTS (continued)

	PAGE	RUSS. PAGE
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Portable, Highly Stable, Transistorized Oscillator with Several Fixed Frequencies, <u>K. I. Nazarov</u>	971	45
Equipment for Oscilloscope Observation of the Traveling-Wave Factor in Ultrahigh Frequency Channels, <u>E. A. Stakhov</u>	974	47
Nonlinearity of Cutoff Attenuators Due to the Effect of Loading, <u>L. A. Birger</u>	976	49
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
An Important Sphere of Work, From the Experience of the Kiev State Inspection Laboratory of Measuring Equipment, <u>M. D. Kalennikov</u>	980	52
Wider Publicity for the Problems of Measurement Techniques and Standardization, <u>A. E. Karamov</u>	982	53
Organizing the Production of Reference Equipment, <u>V. A. Sergeev</u>	983	54
ESSAYS AND REVIEWS		
Electrical Instrument-Making in Holland, <u>K. K. Ilyunin and A. F. Gorodovskii</u>	985	55
Instrument for Measuring the Thickness of Tapes and Foils,	987	57
INFORMATION		
Republican Conference on Controlling the Quality of Manufactured Instruments, <u>B. L. Sokolov</u>	991	59
Conference on Instruments Using Torsion Suspensions, <u>A. M. Lyubarskaya</u>	994	62
Japanese Industrial Exhibition in Moscow,	996	63
COMMITTEE OF STANDARDS, MEASURES AND MEASURING INSTRUMENTS		
I. Measures and Measuring Instruments Approved by the Committee as the Result of State Tests and Passed for Use in the USSR,	998	64
II. Measures and Measuring Instruments Excluded from the State Register	999	64

Measurement Techniques

*A translation of Izmeritel'naya Tekhnika, a publication of the
Academy of Sciences of the USSR*

Russian Original Dated December, 1960

1960, No. 12, pp. 1001-1126

August, 1961

CONTENTS

	PAGE	RUSS. PAGE
Local Organizations of the Standards Committee and the Introduction of New Measurement Techniques. <u>G. N. Sharonov</u>	1001	1
Rationalizing Tests — the Most Urgent Problem for Government Control Laboratories on Measurement Techniques. <u>B. L. Sokolov</u>	1004	3
LINEAR MEASUREMENTS		
A Method for Determining Errors in Linear Measurements. <u>A. K. Kutai</u>	1005	5
V-Shaped Compensator for the Linnik Microinterferometer. <u>A. I. Kartashev</u>	1011	9
The Use of Pneumoelectrical Measuring Units in the Transient State. <u>A. P. Kurochkin</u> and <u>F. V. Tsidulko</u>	1013	11
MEASUREMENTS OF TIME		
A New Device for the Recording and Summation of Periods of Time. <u>A. G. Fleer</u>	1017	14
THERMOTECNICAL MEASUREMENTS		
Calibration of Rare-Metal Thermocouples Against the Melting Point of Palladium. <u>B. K. Bragin</u>	1019	15
Thermometric Platinum Resistivity in the Region of Liquid Helium Temperature. <u>D. I. Sharevskaya</u> and <u>P. G. Strelkov</u>	1023	18
ELECTRICAL MEASUREMENTS		
Principles of Constructing Automatic ac Bridges with Extremal Regulation. <u>F. B. Grinevich</u> ..	1025	20
Testing Current Transformers with Nonstandard Nominal Transformation Coefficients, <u>M. I. Levin</u>	1028	22
Power Measurement Errors in ac Circuits. <u>V. S. Skryabinskii</u>	1032	25
Universal Volt-Ammeters. <u>N. I. Tyurin</u> , <u>A. M. Lyubarskaya</u> , and <u>V. P. Boguslavskii</u>	1035	27
Telemetering Apparent Power with a Hall-Effect Transducer. <u>D. Frenkel'</u> and <u>V. Stoika</u> ...	1039	30
HIGH AND ULTRAHIGH FREQUENCY MEASUREMENTS		
Instability of Quartz Crystal Oscillator Frequencies. <u>F. F. Evstaf'ev</u>	1042	32
Transistorized Bridge-Type Quartz-Crystal Oscillators. <u>A. I. Aleksandrov</u>	1044	34
Measurement of Reflection Factors in Nonhomogeneous Complex UHF Transmission Lines. <u>K. I. Palatov</u>	1048	36
Measurement of Reverse Losses in Ferrite Rectifiers. <u>S. S. Perel'muter</u>	1051	38
RADIATION MEASUREMENTS		
Measuring the Gamma Constant of Radium. <u>K. K. Aglintsev</u> , <u>G. P. Ostromukhova</u> , and <u>E. A. Khol'nova</u>	1054	40
Radium-Mesothorium-Beryllium Source of Neutrons. <u>M. A. Bak</u> and <u>N. S. Shitanskaya</u>	1057	42
Dynamic Error in Registering the Position of an Object by means of Radiometric Relays. <u>K. S. Klempner</u> and <u>A. G. Vasil'ev</u>	1061	46
PHYSICOCHEMICAL MEASUREMENTS		
Measuring the Density of Melts. <u>B. A. Glagovskii</u>	1065	48

CONTENTS (continued)

	PAGE	RUSS. PAGE
Differential Thermal Level-Displacement Transducer, <u>B. M. Gol'tsman</u>	1067	50
MEASUREMENTS OF VOLUME		
Calibration of Horizontal Tanks by a Combined Method, <u>N. V. Nikolin</u>	1069	51
Calibration in Centimeter Steps of Underground Horizontal Tanks with Cylindrical Bottoms, <u>E. N. Lessig</u>	1070	52
ESSAYS AND REVIEWS		
State of Reference and Calibration Work in the USA in the Sphere of Radio Electronics, <u>V. R.</u>	1072	53
Orion-MEG Oscillosynchroscope Type 1548.	1075	55
MATERIAL RECEIVED BY THE EDITORIAL BOARD		
Qualified Personnel for the Factory Test Laboratories, <u>Ya. E. Medovnik</u>	1077	57
Economy in the Use of Electrical Energy, <u>M. D. Kalennikov</u>	1078	58
Instrument Reception Bureaus in the State Inspection Laboratories, <u>V. V. Petropavlovskii</u> ..	1079	59
Organizing the Production of Test Sets, <u>I. M. Veisas</u>	1080	60
INFORMATION		
In the International Metrological Organizations.	1081	60
Exhibition of Dutch Medical and Scientific Instruments.	1082	61
COMMITTEE OF STANDARDS, MEASURES, AND MEASURING INSTRUMENTS		
Amendments to Instruction 15-52 for Checking Stationary Unequal Arm (Platform) Scales.	1084	62
I. New Specifications for Measures and Measuring Instruments Approved by the Committee.	1086	63
II. Measures and Measuring Instruments Approved by the Committee as the Result of State Tests and Passed for Use in the USSR	1086	63
III. Measures and Measuring Instruments Excluded from the State Register	1087	63
FROM THE PAGES OF OTHER JOURNALS		
Archiv für technisches Messen	1088	64
Instruments and Control Systems	1088	64
Measures et controle industrial.	1089	64
The Review of Scientific Instruments	1089	64
Feingerätetechnik.	1090	64
Author Index, 1960, Nos. 1-12	1093	
Tables of Contents, 1960, Nos. 1-12	1102	